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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/789,134

02/27/2004

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10,398

6767

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07/20/2007

EXAMINER

HOFFMAN, MARY C

ART UNIT

PAPER NUMBER

3733

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/789,134

Applicant(s)

JACKSON, ROGER P.

Examiner

Mary Hoffman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/03/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Objections

Claims 8 and 9 are objected to because of the following informalities: Claims 8 and 9 are dependent from themselves. For examination purposes, claim 8 is being considered as dependent from claim 7, and claim 9 is being considered as dependent from claim 8.

Appropriate correction is required.

Specification

The disclosure is objected to because of the following informalities: The specification appears to use ref. #50 as both the reference number for the first guide and advancement structure of the end guide tool (ref. #9) shown in FIG. 6, and the intermediate guide tool (ref. #10) shown in FIG. 3. Different structural limitations illustrated in the Drawings should not be discussed in the Specification using the same reference number, in this case, ref. #50.

Appropriate correction is required.

Drawings

The drawings are objected to because they refer to two different structural features (ref. #50 of the intermediate guide tool in FIG. 3 and ref. #50 of the end guide tool in FIG. 6) by the same reference number, ref. #50. Corrected drawing sheets in

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compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Response to Arguments

Applicant's arguments, see page 13 of the Appeal Brief, filed 12/11/2006, with respect to the rejection(s) of claim(s) 1-7 under Haider (US Pat. 6,740,098) in view of Roussouly et al. (US Pat. 5,810,816) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Choi (US 2001/0023350), and 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 states that "each of the end and intermediate guide tools have a first helically wound guide and advancement structure located near a bottom thereof; the first guide and advancement structure providing a helical pathway adapted to rotatably and matingly receive a mating guide and advancement structure of a bone screw closure top; and the first guide and advancement structure also being operably alignable with a second guide and advancement structure ..." It is unclear which "the first guide and advancement structure providing a helical pathway" the claim is referring to, i.e. is the claim reciting that the first guide and advancement structure of the end guide tool provides a helical pathway or that the first guide and advancement structure of the intermediate guide tool provides the helical pathway. Or, is the claim reciting that the first guide and advancement structures of both the end guide tool and the intermediate guide tool provide a helical pathways. The claims are unclear because Applicant appears to be referring to two different structural features, the first guide and advancement structure of the end guide tool and the first guide and advancement structure, by the same term in the claims thereby making the claim confusing to the reader.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1- 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Choi (US 2001/0023350).

Choi discloses a tool set (FIGS. 9, 13) for implanting a spinal rod in a patient; the tool set comprising a pair of end guide tools (FIG. 9, ref. #30); each of the end guide tool being non integral with and adapted to be selectively joinably attached at a lower end thereof to a respective spinal implant bone screw; each of the end guide tools including a longitudinal guide channel (FIG. 7(a), ref. #36) extending upwardly from the lower end thereof; each of the channels being sized and shaped to be adapted to receive opposite ends of the rod for operably guiding the rod ends toward respective bone screws; each of the end guide tools have a helically wound first guide and advancement structure (FIG. 7(a), ref. #35) located near a bottom thereof; the first guide and advancement structure providing a helical pathway adapted to rotatably and matingly receive a mating structure of a bone screw closure top (ref. #20); and the first guide and advancement structure also being adapted to be aligned during joining with a respective bone screw with a second guide and advancement structure (ref. #11) on such a respective bone screw so as to continue the helical pathway when a respective guide tool is joined with such a respective bone screw and so as to be adapted to

transfer the closure top between a respective guide tool and a respective bone screw upon rotation of the closure top. An intermediate guide tool (ref. #30) for use with a separate spinal implant bone screw; the tool including lower attachment structure (ref. #38) adapted for removable attachment to a respective bone screw; a longitudinal pass through slot (ref. #36) extending from a bottom thereof upward and being adapted to receive therethrough and guide the rod to a bone screw attached to the intermediate guide tool; a helically wound first guide and advancement structure (ref. #35) located near a bottom of the intermediate guide tool; the first guide and advancement structure providing a helical pathway adapted to rotatably and matingly receive a mating structure of a bone screw closure top (ref. #20); and the first guide and advancement structure also being adapted to be aligned with a second guide and advancement structure (ref. #11) on a bone screw so as to continue the helical pathway when the guide tool is attached to a bone screw and so as to be adapted to transfer the closure top between the guide tool and the non integral bone screw upon rotation of the closure top. A vertebral support rod implantation kit adapted for use with a plurality of vertebra (see FIG. 8) including a plurality of polyaxial bone screws (see FIG. 9) with each bone screw being adapted for implantation in one vertebra; each of the bone screws having a mating attachment structure (ref. #19); an elongate rod (ref. #40) sized and shaped to extend between a pair of end bone screws of the plurality of bone screws; a pair of end guide tools (ref. #30) separate from the bone screws; each of the end guide tools being non integral relative to a bone screw and including an end guide tool attachment structure (ref. #38) at a lower end thereof that operably and removably connects with

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the bone screw mating attachment structure of a respective bone screw; each of the end guide tools including a longitudinal guide channel (ref. #36) extending upwardly from near the lower end thereof; each of the channels being sized and shaped to slidably receive opposite ends of the rod for operably guiding the rod ends toward respective bone screws; each of the end guide tools have a first helically wound guide and advancement structure (ref. #35) located near a bottom thereof the first guide and advancement structure providing a helical pathway adapted to rotatably and matingly receive a mating guide and advancement structure of a bone screw closure top; and the first guide and advancement structure also being operably alignable with a second guide and advancement structure (ref. #11) located on a respective bone screw so as to continue the helical pathway when a respective guide tool is selectively joined to a respective bone screw and so as to be adapted to transfer the closure top between a respective guide tool and the bone screw upon rotation of the closure top. The closure top has the mating guide and advancement structure thereon (ref. #24).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Choi (US 2001/0023350) using a different interpretation.

In FIG. 14, Choi discloses and integral guide tool (ref. #51, FIG. 10) and bone screw (ref. #17). Each of the end guide tools including a longitudinal guide channel (channel separating upwardly extending arms of ref. #51) extending upwardly from the lower end thereof; each of the channels being sized and shaped to be adapted to receive opposite ends of the rod (ref. #40) for operably guiding the rod ends toward respective bone screws; each of the end guide tools have a helically wound first guide and advancement structure (ref. #11, above cutting line ref. #55) located near a bottom thereof; the first guide and advancement structure providing a helical pathway adapted to rotatably and matingly receive a mating structure of a bone screw closure top (ref. #20); and the first guide and advancement structure also being adapted to be aligned during joining with a respective bone screw with a second guide and advancement structure (ref. #11, below cutting line ref. #55) on such a respective bone screw so as to continue the helical pathway when a respective guide tool is joined with such a respective bone screw and so as to be adapted to transfer the closure top between a respective guide tool and a respective bone screw upon rotation of the closure top. The closure top mating guide and advancement structure and the bone screw second guide and advancement structure include interlocking members so as to be interlocking upon being mated.

Choi discloses the claimed invention except for the guide tool being non integral with the bone screw and being selectively operably connectable to the bone screw, and the first guide and advancement structure being a square thread.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the guide tool of Choi being non integral and selectively operably connectable to the bone screw, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179. Furthermore, it would have been an obvious matter of design choice to one skilled in the art at the time the invention was made to construct the first guide and advancement structure, or screw threads, of Choi, being square threads, since applicant has not disclosed that such solve any stated problem or is anything more than one of numerous shapes or configurations a person of ordinary skill in the art would find obvious for the purpose of providing a first guide and advancement structure (threads). In *re Dailey and Eilers*, 149 USPQ 47 (1966).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Hoffman whose telephone number is 571-272-5566. The examiner can normally be reached on Monday-Friday 9:00-5:00pm.

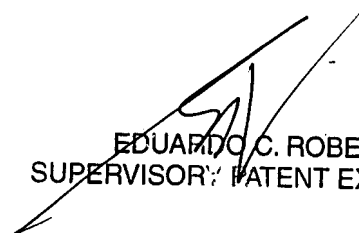
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo C. Robert can be reached on 571-272-4719. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MCH



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